

No.

8800078



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

AgriPro Biosciences, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT

'W2502'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C.
this 30th day of April in the year of our Lord one thousand nine hundred and ninety-two.

Attest:

Kenneth H. Evans
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Edward Madigan
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

FORM APPROVED: OMB NO. 0581-0055

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

1. NAME OF APPLICANT(S) AGRI PRO BIOSCIENCES INC. Nickerson American Plant Breeders Inc.		2. TEMPORARY DESIGNATION HS84-700		3. VARIETY NAME W2502	
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) 5201 Johnson Drive P.O. Box-2955 Mission, Kansas 66201		5. PHONE (Include area code) 303-532-3721 (CO) 913-384-4940 (KS)		FOR OFFICIAL USE ONLY PVPO NUMBER 8800078	
6. GENUS AND SPECIES NAME Triticum aestivum		7. FAMILY NAME (Botanical) Gramineae		FILING DATE Feb. 9, 1988 TIME 1:30 <input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M.	
8. KIND NAME Hard Red Spring Wheat		9. DATE OF DETERMINATION 1=1984 2=1986		AMOUNT FOR FILING \$ 1800.00 DATE Feb. 9, 1988	
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Corporation				AMOUNT FOR CERTIFICATE \$ 200.00 DATE April 2, 1992	
11. IF INCORPORATED, GIVE STATE OF INCORPORATION Delaware				12. DATE OF INCORPORATION January 19, 1983	
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS					
R.E. Heiner P.O. Box 2955 Mission, Kansas 66201 913-384-4940		C. Bruns P.O. Box 30 Berthoud, CO 303-532-3721		Melvorn K. Anderson Busch Agricultural Resources Inc P.O. Box 30 Berthoud, CO	
14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED					
a. <input checked="" type="checkbox"/> Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)					
b. <input checked="" type="checkbox"/> Exhibit B, Novelty Statement.					
c. <input checked="" type="checkbox"/> Exhibit C, Objective Description of Variety (Request form from Plant Variety Protection Office.)					
d. <input checked="" type="checkbox"/> Exhibit D, Additional Description of Variety.					
e. <input checked="" type="checkbox"/> Exhibit E, Statement of the Basis of Applicant's Ownership. Exhibit F, Quality and Agronomic Data					
15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act.) <input checked="" type="checkbox"/> Yes (If "Yes," answer items 16 and 17 below) <input type="checkbox"/> No					
16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? <input checked="" type="checkbox"/> Foundation <input checked="" type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified		
18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.? <input type="checkbox"/> Yes (If "Yes," give date) <input checked="" type="checkbox"/> No					
19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETING IN THE U.S. OR OTHER COUNTRIES? <input type="checkbox"/> Yes (If "Yes," give names of countries and dates) <input checked="" type="checkbox"/> No					
20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.					
SIGNATURE OF APPLICANT RE Heiner				DATE 2-2-88	
SIGNATURE OF APPLICANT				DATE	

EXHIBIT A
ORIGIN AND BREEDING HISTORY OF W2502

W2502 originated from the cross 'MN7357/Marshall' which was made at Berthoud, Colorado in 1979. F2 selections from this cross were advanced in the greenhouse through the F4 generation by single seed descent. The original bulk was from a single F5 head-row selection made at an AgriPro breeding nursery in Climax, Minnesota in 1983. This bulk was entered into yield trials in 1984 under the experimental number HS84-700. This line has been yield tested in AgriPro nurseries in the Red River Valley from 1984 to 1987. It has also been tested in the Northern Uniform Regional Nursery in 1986 and 1987.

There were 384 head-rows grown in Berthoud, CO in 1985 and 347 were selected to produce breeder seed. Approximately 2,400 pounds of breeder seed was produced in 1986. An additional 132,840 pounds of foundation seed was produced in 1987 in Berthoud, Colorado.

W2502 is uniform and stable. Less than .5% of the plants have been rogued from the foundation field in 1987. Approximately 95% of the rogued variant plants were 3 to 15 centimeters taller than W2502. Less than .5% of these total variant plants may be encountered in subsequent generations.

EXHIBIT B.

NOVELTY STATEMENT

W2502 is most similar to the hard red spring wheats Wheaton and W2501. However, it can be easily distinguished by the following agronomic and morphological characteristics:

- W2502 has much stronger straw strength than Wheaton, (see Agronomic table page 1).
- W2502 is 1.3 days earlier heading than Wheaton, (see Agronomic table page 1).
- W2502 and W2501 both have acuminate type beaks, however W2502 has a much longer acuminate type beak, (see statistical data page 2).
- W2502 has a narrow glume width. W2501 has a midwide glume width, (see statistical data page 3).
- W2502 has a significantly shorter seed length than Wheaton, (see statistical data pages 4 and 5).

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OVER-YEAR SUMMARY OF AGRIPRO AND OTHER SELECTED VARIETIES

Variety	YIELD - BU/A			3-Yr. Avg.	% of Wheaton	(13) T. Wt. Lbs/Bu	(15) Ht. (cm)	(7) Lodg. (1-9)	(19) Head. Days	(6) Foliar Disease (1-9)	(11) Wheat Prot. %
	85(5)	86(4)	87(5)								
Nordic	90.6	56.5	72.5	74.4	103	60.6	83.2	4.4	58.9	3.8	12.6
Erik	87.9	60.7	67.9	73.0	101	58.7	81.6	5.2	60.5	3.3	13.4
W2501	89.9	56.5	69.4	73.0	101	57.5	77.5	2.1	57.2	5.2	13.0
W2502	87.5	58.2	69.0	72.5	100	58.5	77.0	1.3	56.7	5.3	13.1
Wheaton	85.4	57.9	70.6	72.3	100	58.1	77.6	3.0	58.0	4.3	12.9
Marshall	86.3	58.0	66.3	71.1	98	59.3	78.7	2.5	59.0	4.3	13.1
Norseman	87.1	54.6	68.1	71.0	98	57.2	76.0	1.6	59.0	4.2	13.6
Telemark	86.7	58.3	64.5	70.7	98	58.4	74.5	1.1	57.5	4.3	14.3
HS84-873	85.3	54.2	68.2	70.3	97	59.1	78.6	1.8	56.7	6.1	13.1
Era	84.0	52.2	63.4	67.6	93	58.5	79.0	4.9	60.2	3.9	12.8
Oslo	82.2	52.4	64.3	67.3	93	57.9	78.4	1.5	55.4	6.9	13.4
Stoa	77.9	53.9	66.5	66.9	93	59.3	95.4	3.5	57.0	4.7	14.9
Celtic	80.3	53.2	63.6	66.6	92	59.5	83.0	3.1	57.2	3.4	14.4
2369	76.9	55.6	61.5	65.3	90	59.0	79.1	3.2	57.9	4.7	13.6
Len	77.5	52.3	63.0	65.1	90	59.7	82.4	2.3	58.0	4.6	14.6
Guard	76.6	51.8	64.2	65.1	90	59.5	80.8	2.1	55.9	6.5	13.9

() - indicates number of locations

87SUMJS

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ANOVA TABLE FOR BEAK LENGTH

W2502 VS. W2501

<u>SOURCE</u>	<u>DF</u>	<u>SS</u>	<u>MS</u>
TOTAL	49	102.022	
VAR	1	72.240	72.24028
ERROR	48	29.781	0.62045

F-TEST = 116.433**

CV = 5.400

LSD(5%) = 0.089

MEANS FOR EACH VARIETY

W2501 = 2.34 mm

W2502 = 4.74 mm

**The difference in means of beak length are significantly different at the 1% probability level.

ANOVA TABLE FOR GLUME WIDTH
W2502 VS. W2501

<u>SOURCE</u>	<u>DF</u>	<u>SS</u>	<u>MS</u>
TOTAL	49	5.707	
VAR	1	3.277	3.27688
ERROR	48	2.430	0.05063

F-TEST = 64.719**

CV = 2.025

LSD(5%) = 0.025

MEANS FOR EACH VARIETY

W2501 = 3.57 mm

W2502 = 3.06 mm

**The difference in means of glume width are significantly different at the 1% probability level.

ANOVA TABLE FOR SEED LENGTH
W2502 VS. WHEATON (BERTHOUD, CO-1987)

<u>SOURCE</u>	<u>DF</u>	<u>SS</u>	<u>MS</u>
TOTAL	49	3.729	
VAR	1	0.541	0.54099
ERROR	48	3.188	0.06641

F-TEST = 8.146**

CV = 0.731

LSD(5%) = 0.029

MEANS FOR EACH VARIETY

W2502: 5.83 mm

WHEATON: 6.03 mm

**The difference in means of seed length are significantly different at the 1% probability level.

ANOVA TABLE FOR SEED LENGTH

W2502 VS. WHEATON (BORUP, MN-1987)

SOURCE	DF	SS	MS
TOTAL	49	4.557	
VAR	1	0.541	0.54059
ERROR	48	4.016	0.08367

F-TEST = 6.461*

CV = 0.917

LSD(5%) = 0.033

MEANS FOR EACH VARIETY

WHEATON = 5.712 mm

W2502 = 5.504 mm

*The difference in means of seed length are significantly different at the 5% probability level.

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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN & SEED DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY
WHEAT (TRITICUM SPP.)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S)

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)

FOR OFFICIAL USE ONLY

PVPO NUMBER

8800078

VARIETY NAME OR TEMPORARY DESIGNATION

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g., 0 8 9 or 0 9) when number is either 99 or less or 9 or less.

1. KIND:

1 1 = COMMON 2 = DURUM 3 = EMMER 4 = SPELT 5 = POLISH 6 = POULARD 7 = CLUB

2. TYPE:

1 1 = SPRING 2 = WINTER 3 = OTHER (Specify) 2 1 = SOFT 2 = HARD 3 = OTHER (Specify)

2 1 = WHITE 2 = RED 3 = OTHER (Specify)

3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:

0 5 1 FIRST FLOWERING 0 5 6 LAST FLOWERING

4. MATURITY (50% Flowering):

0 3 NO. OF DAYS EARLIER THAN 7 1 = ARTHUR 2 = SCOUT 3 = CHRIS
-- -- NO. OF DAYS LATER THAN 4 = LEMHI 5 = NUGAINES 6 = LEEDS 7 = Marshall

5. PLANT HEIGHT (From soil level to top of head):

0 7 7 CM. HIGH
-- -- CM. TALLER THAN
0 2 CM. SHORTER THAN 7 1 = ARTHUR 2 = SCOUT 3 = CHRIS
4 = LEMHI 5 = NUGAINES 6 = LEEDS 7 = Marshall

6. PLANT COLOR AT BOOTING (See reverse):

2 1 = YELLOW GREEN 2 = GREEN 3 = BLUE GREEN

7. ANTER COLOR:

1 1 = YELLOW 2 = PURPLE

8. STEM:

1 Anthocyanin: 1 = ABSENT 2 = PRESENT 2 Waxy bloom: 1 = ABSENT 2 = PRESENT

2 Hairiness of last internode of rachis: 1 = ABSENT 2 = PRESENT

1 Internodes: 1 = HOLLOW 2 = SOLID

0 4 NO. OF NODES (Originating from node above ground)

1 7 CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW

9. AURICLES:

2 Anthocyanin: 1 = ABSENT 2 = PRESENT 2 Hairiness: 1 = ABSENT 2 = PRESENT

10. LEAF:

2 Flag leaf at booting stage: 1 = ERECT 2 = RECURVED 3 = OTHER (Specify):

2 Flag leaf: 1 = NOT TWISTED 2 = TWISTED

1 Hairs of first leaf sheath: 1 = ABSENT 2 = PRESENT

2 Waxy bloom of flag leaf sheath: 1 = ABSENT 2 = PRESENT

1 2 MM. LEAF WIDTH (First leaf below flag leaf)

2 6 CM. LEAF LENGTH (First leaf below flag leaf)

'W2502'

-8800078

FORM GR-470-5 (REVERSE)

11. HEAD:

Density: 1 = LAX 2 = DENSE 3 = MIDDENSE Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE
 4 = OTHER (Specify) _____
 Awnedness: 1 = AWNLESS 2 = APICALLY AWNLETED 3 = AWNLETED 4 = AWNED
 Color at maturity: 1 = WHITE 2 = YELLOW 3 = PINK 4 = RED
 5 = BROWN 6 = BLACK 7 = OTHER (Specify): _____
 CM. LENGTH MM. WIDTH

12. GLUMES AT MATURITY:

Length: 1 = SHORT (CA. 7 mm.) 2 = MEDIUM (CA. 8 mm.) 3 = LONG (CA. 9 mm.)
 Width: 1 = NARROW (CA. 3 mm.) 2 = MEDIUM (CA. 3.5 mm.)
 3 = WIDE (CA. 4 mm.)

Shoulder: 1 = WANTING 2 = OBLIQUE 3 = ROUNDED
 shape: 4 = SQUARE 5 = ELEVATED 6 = APICULATE Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE

13. COLEOPTILE COLOR:

1 = WHITE 2 = RED 3 = PURPLE

14. SEEDLING ANTHOCYANIN:

1 = ABSENT 2 = PRESENT

15. JUVENILE PLANT GROWTH HABIT:

1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT

16. SEED:

Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL Cheek: 1 = ROUNDED 2 = ANGULAR
 Brush: 1 = SHORT 2 = midlong 3 = LONG Brush: 1 = NOT COLLARED 2 = COLLARED **tendency to be
 Phenol reaction: 1 = IVORY 2 = FAWN 3 = LT. BROWN
 (See instructions): 4 = BROWN 5 = BLACK
 Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify) _____
 MM. LENGTH MM. WIDTH GM. PER 1000 SEEDS

17. SEED CREASE:

Width: 1 = 60% OR LESS OF KERNEL 'WINOKA'
 2 = 80% OR LESS OF KERNEL 'CHRIS'
 3 = NEARLY AS WIDE AS KERNEL 'LEMMH'
 Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT'
 2 = 35% OR LESS OF KERNEL 'CHRIS'
 3 = 50% OR LESS OF KERNEL 'LEMMH'

18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant, 3 = Moderately Susceptible, 4 = Moderately Resistant)

STEM RUST (Races) field races LEAF RUST (Races) field races STRIPE RUST (Races) LOOSE SMUT
 POWDERY MILDEW BUNT OTHER (Specify) _____

19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant, 3 = Moderately Susceptible, 4 = Moderately Resistant)

SAWFLY APHID (Bydv.) GREEN BUG CEREAL LEAF BEETLE
 OTHER (Specify) _____ HESSIAN FLY
 RACES: GP A B C
 D E F G

20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	W2501	Seed size	W2501
Leaf size	W2501	Seed shape	W2501
Leaf color	W2501	Coleoptile elongation	W2501
Leaf carriage	W2501	Seedling pigmentation	W2501

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

(a) L.T. Briggie and L. P. Reitz, 1961, *Classification of Triticum Species and Their Varieties Grown in the United States*, Technical Bulletin 1278, United States Department of Agriculture.

(b) T.E. Walls, 1965, *A Standardized Phenol Method for Testing Wheat Seeds for Vernal Purity*, contribution No. 29 to the handbook of seed testing prepared by the Association of Official Seed Analysts. (See attachment.)

LEAF COLOR: Nickerson's or any recognized color fan should be used to determine the leaf color of the described variety.

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EXHIBIT D.

ADDITIONAL BOTANICAL DESCRIPTION OF W2502

W2502 is a hard red spring wheat bred and developed by Nickerson American Plant Breeders Inc. but the exclusive rights to market, produce and distribute this variety in North America are held by Busch Agricultural Resources, Inc. Berthoud, Colorado. It was tested as experimental number HS84-700.

W2502 is a short semidwarf wheat with excellent straw strength and early to medium-early maturity. W2502 provides very good protection to stem and leaf rust and fair protection to the foliar leaf diseases.

Juvenile plant growth habit is semi-erect. Plant color at boot is green with a recurved flag leaf. Auricle hairs and auricle anthocyanin are present. Head shape is tapering to strap, middense, awned and white at maturity. Glumes are glabrous, midlong and narrow with oblique to round shoulders and acuminate beaks. Seed shape is ovate with angular to rounded cheeks. Seed of W2502 has a tendency to be collared, while the crease is midwide and midlong.

W2502 is primarily adapted to the high yield areas of the spring wheat region. This includes the states of North and South Dakota and Minnesota.

YEAR: 1986

AGRI-PRO SEEDS

HARD RED SPRING WHEAT QUALITY

PAGE 1

WHEAT--FLOUR QUALITY

BAKING QUALITY

YEAR	SAMPLE NAME	LOC	TEST WT.		WHT		FLR		FLR		FLR		MIX CURVE	ABS.	MIX DOUGH			LOAF			CRUMB			MILL SCORE	BAKE SCORE	TOTAL SCORE
			WT.	Bu	14%mb	%	YLD	PROT	14%mb	%	VLD	PROT			14%mb	R	min	R	cc	VOL	GRN	TEX	COL			
86	H584-700	ST	57.5		13.6		73.4		13.2		0.416		6	63.0	3.3	7	1000+		8		8	81-B	87-B	168-B		
86	H584-700	CY	56.8		13.4		71.9		12.9		0.432		6	64.0	4.5	8	1000		8		8	74-C	91-A	165-B		
86	H584-700	CX	56.5		12.9		71.5		12.0		0.439		7	65.0	3.5	8	1000+		7		8	73-C	90-A	163-B		
85	H584-700	ST	59.0		12.5		71.1		11.4		0.349		7	63.0	5.3	8	930		8		8	74-C	83-B	157-C		
85	H584-700	CX	58.0		12.6		69.2		11.7		0.372		7	64.0	4.5	8	930		7		8	72-C	88-B	158-C		
85	H584-700	CY	60.5		13.8		69.3		12.3		0.337		7	65.0	4.8	8	1000+		7		8	79-C	92-A	170-B		
	AVERAGE		58.1		13.1		71.1		12.2		0.391		7	64.0	4.4	8	1000+		8		8	79-C	90-A	168-B		

86	LEN	ST	60.6	15.2	74.1	13.8	0.425	9				9	66.0	3.0	8	1000+	7				97-A	89-B	186-A
86	LEN	CY	57.6	15.3	71.6	14.2	0.421	9				9	66.0	4.3	8	1000+	6				92-A	89-B	181-A
86	LEN	CX	58.8	14.3	71.1	13.0	0.419	8				8	66.0	3.8	7	1000+	7				83-B	89-B	177-B
85	LEN	ST	59.8	13.7	70.7	12.4	0.371	9				9	67.0	3.5	7	820	5				85-B	79-C	164-B
85	LEN	CX	57.5	14.5	66.7	13.3	0.387	8				8	68.0	4.0	8	920	7				73-C	84-B	163-B
85	LEN	CY	60.0	15.1	69.6	13.1	0.350	9				9	67.0	4.0	8	1000	8				91-A	94-A	185-A
AVERAGE			59.1	14.7	70.6	13.3	0.396	9				9	66.3	3.8	8	982	7				92-A	89-B	181-A

86	WHEATON	ST	58.2	13.1	72.7	12.3	0.419	7				7	64.0	3.8	8	1000+	6				80-B	86-B	166-B
86	WHEATON	CY	57.3	12.9	72.5	12.3	0.441	8				8	64.0	4.3	8	1000	8				79-C	89-B	168-B
86	WHEATON	CX	56.1	12.9	71.2	11.9	0.449	7				7	65.0	4.0	7	1000+	6				72-C	88-B	160-B
85	WHEATON	ST	59.5	12.1	70.6	10.8	0.393	7				7	65.0	4.0	9	950	8				70-C	90-A	160-B
85	WHEATON	CX	58.3	13.0	67.6	11.5	0.375	7				7	65.0	4.0	8	980	8				70-C	90-A	160-B
85	WHEATON	CY	60.5	13.2	67.7	11.8	0.343	7				7	65.0	4.0	8	1000	8				71-C	92-A	163-B
AVERAGE			59.3	12.9	70.4	11.8	0.402	7				7	64.7	4.0	8	1000+	7				73-C	90-A	163-B

GRADES: A-EXCELLENT B-GOOD C-ACCEPTABLE D-QUESTIONABLE F-UNACCEPTABLE
 R-RATINGS: 8-10=EXCELLENT 8=GOOD 7=ACCEPTABLE 5-6=QUESTIONABLE 1-4=UNACCEPTABLE

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AGRIPO WHEAT
HARD RED SPRING WHEAT

YEAR: 1987

PAGE 2.

FLOUR/WHEAT QUALITY

BAKING QUALITY

YEAR	VARIETY OR LINE	LOC	TEST WT	WHT PROT	FLR PROT	---MIXOGRAM---								---CRUMB---						OVER	
						HRD	YLD	ASH	PK TIME	PK HT	TOL	MIX TIME	LOAF VOL	GR	TX	COL	ALL	COMMT			
			lb/Bu	14%mb	14%mb R		% R		min	N.U.	mm	R	% R	min R	cc R	R	R	R	R		
87	HS84-0700	BL	60.6	12.2	11.3 5	58	72.7 2	.000	4.00	5.5	2.4 2		65.0 2	3.75 1	1030 5	4	4	3	40 b		
87	HS84-0700	CX	58.1	12.7	11.9 4	54	74.1 2	.000	3.50	5.5	2.6 2		65.0 2	3.50 1	1140 2	4	3	3	33		
87	HS84-0700	BP	58.5	12.4	11.4 5	56	72.2 2	.000	3.50	5.5	2.1 3		64.0 3	3.50 1	1070 3	4	4	3	41		
87	HS84-0700	CS	59.6	12.0	11.3 5	60	71.6 3	.000	4.50	4.5	2.9 1		62.0 5	4.50 3	1060 4	4	4	3	43		
AVERAGE			59.2	12.3	11.5 5	57	72.7 2	.000	3.88	5.3	2.5 2		64.0 3	3.81 2	1075 4	4	4	3	39		
87	WHEATON	BL	60.0	12.5	11.4 5	53	73.0 1	.000	3.50	5.5	2.2 3		65.0 2	3.50 1	1100 3	4	3	3	37		
87	WHEATON	CX	58.0	12.6	11.6 4	53	75.2 1	.000	3.50	5.5	2.7 2		65.0 2	3.50 1	1050 5	4	4	3	37		
87	WHEATON	BP	58.5	13.1	11.1 5	54	72.9 2	.000	3.25	5.5	1.1 6		65.0 2	3.25 3	1000 5	4	3	3	48		
87	WHEATON	CS	57.9	12.0	10.9 6	59	70.5 4	.000	4.50	5.0	2.2 4		63.0 4	4.50 3	1040 5	5	4	3	54		
AVERAGE			58.6	12.6	11.3 5	55	72.9 2	.000	3.69	5.4	2.1 4		64.5 3	3.69 2	1048 5	4	4	3	44		

page 4.

STEM RUST AND LEAF RUST RATING
CEREAL RUST NURSERY* - 1986

<u>VARIETY</u>	<u>STEM RUST</u>	<u>LEAF RUST</u>
ERA	5R	TR
BUTTE	30MR-MS	60S
WALDRON	10R-MR	60S;TR
W2502	TR	TR

*ST. PAUL, MINNESOTA

EXHIBIT E.

STATEMENT OF THE BASIS OF APPLICANT'S OWNERSHIP

W2502 was bred and developed by Nickerson American Plant Breeders Inc. W2502 is owned by Nickerson American Plant Breeders Inc. but the exclusive rights to market, produce and distribute this variety in North America are held by Busch Agricultural Resources Inc. of Berthoud, Colorado.

EXHIBIT F.

QUALITY AND AGRONOMIC DATA

Quality Data.pages 1.-2.
Agronomic Data.page 3.
Pathological Ratings.page 4.